

What is claimed is:

1. An optical disk drive comprising:

an offset controller for changing a focus offset of laser in a direction of an optical axis to a focal point on an optical disk;

- 5 a pre-test data recorder for recording pre-test data in a trial write area provided on the optical disk with the laser having a power kept in constant while the focus offset is changed by said offset controller;

an offset detector for detecting a focus offset that minimizes an asymmetry value of a read signal of the pre-test data;

- 10 a power controller for recording an Optimum Power Control (OPC) test data in the trial write area while changing the power of the laser; and

an OPC operator for determining an optimum power of the laser in accordance with an asymmetry value of a read signal of the OPC test data.

- 15 2. The optical disk drive of claim 1, wherein the asymmetry value is calculated by equations:

$$\{-(T'-U')/(T'+U')\} \times 100 (\%);$$

$$T'=T-T_{ref}; \text{ and}$$

$$U'=U-U_{ref},$$

- 20 where T is a top level of the read signal, and Tref is a reference level of the top level, and

where U is a bottom level of the read signal, and Uref is a reference level of the bottom level.

- 25 3. The optical disk drive of claim 1, wherein said OPC operator adjusts the focal point of the laser according to the focus offset detected by said offset detector.

4. The optical disk drive of claim 1,

wherein said pre-test data recorder records the pretest data in a single-trial write area in the trial write area, and

wherein said power controller records the OPC test data in the single-trial write area.

5 5. The optical disk drive of claim 1, further comprising:

a focus error signal detector for detecting the focus offset as a focus error signal,

10 wherein the focus offset changed by said offset controller ranges in a focus offset corresponding to -50% to +50% of an amplitude of the focus error signal.

6. An optical disk drive, comprising:

an offset controller for changing a focus offset of laser in a direction of an optical axis to a focal point on an optical disk;

15 a pre-test data recorder for recording pre-test data in a trial write area provided on the optical disk with the laser having a power kept in constant while the focus offset is changed by said offset controller;

an offset detector for detecting a focus offset that maximizes an amplitude of a read signal of the pre-test data;

20 a power controller for recording an Optimum Power Control (OPC) test data in the trial write area while changing the power of the laser; and

an OPC operator for determining an optimum power of the laser in accordance with the amplitude of the read signal of the OPC test data.

25 7. The optical disk drive of claim 6, wherein said OPC operator adjusts the focal point of the laser according to the focus offset detected by said offset detector.

8. The optical disk drive of claim 6,

wherein said pre-test data recorder records the pre-test data in a

single-trial write in the trial write area, and

wherein said power controller records the OPC test data in the single-trial write area.

9. The optical disk drive of claim 6, further comprising:

- 5 a focus error signal detector for detecting the focus offset as a focus error signal,

wherein the focus offset changed by said offset controller ranges in a focus offset corresponding to -50% to +50% of an amplitude of the focus error signal.